

Abstract of the Disclosure

Methanol steam reforming catalysts, and steam reformers and fuel cell systems incorporating the same. In some embodiments, the methanol steam reforming catalyst includes zinc oxide as an active component. In some
5 embodiments, the methanol steam reforming catalyst further includes at least one of chromium oxide and calcium aluminate. In some embodiments, the methanol steam reforming catalyst is not pyrophoric. Similarly, in some embodiments, steam reformers including a reforming catalyst according to the present disclosure may include an air-permeable or air-accessible reforming catalyst bed. In some
10 embodiments, the methanol steam reforming catalyst is not reduced during use. In some embodiments, the methanol reforming catalysts are not active at temperatures below 275° C. In some embodiments, the methanol steam reforming catalyst includes a sulfur-absorbent material. Steam reformers, reforming systems, fuel cell systems and methods of using the reforming catalysts are also disclosed.